

IN THE CLAIMS:

1. (Currently Amended) A method of eliciting an antitumor effect in vivo comprising the steps of:

identifying ~~a species representative of~~ a treatment subject;

identifying at least one non-coding nucleic acid sequence ~~of the species~~, wherein the non-coding nucleic acid sequence is not associated with the expression of a gene of the treatment subject ~~does not code for a therapeutic protein~~;

intratumorally introducing the at least one non-coding nucleic acid sequence to at least one tumor cell in the treatment subject; and

applying energy from an energy source to the at least one tumor cell, the application of the energy effective in eliciting an antitumor effect.

2. (Previously Amended) The method of claim 1 wherein the energy source is an electrical energy source.
3. (Withdrawn) The method of claim 1 wherein the energy source comprises sonic output.
4. (Withdrawn) The method of claim 1 wherein the energy source comprises photonic output.
5. (Withdrawn) The method of claim 1 wherein the energy source comprises microwave output.
6. (Previously Amended) The method of claim 1 wherein the step of applying energy from an energy source, further comprises making at least one cell in the at least one tumor permeable.
7. (Previously Amended) The method of claim 2 wherein the electrical energy source is an electrical source having a strength between 100 to 5,000 volts per centimeter.
8. (Previously Amended) The method of claim 2 wherein the electrical energy source is an electrical energy source comprising a plurality of electrical pulses.

9. (Previously Amended) The method of claim 1 wherein the step of introducing the at least one non-coding nucleic acid to at least one tumor cell in the treatment subject comprises injecting the nucleic acid into extracellular space coincident to the at least one tumor.
10. (Previously Amended) The method of claim 1 wherein the step of introducing the at least one non-coding nucleic acid to at least one tumor cell in the treatment subject comprises jet injecting the nucleic acid into extracellular space coincident to the at least one tumor.
11. (Original) The method of claim 1 further comprising the step of substantially simultaneously introducing a second nucleic acid sequence that codes for a therapeutic molecule.